

Application No. 09/849621(Docket: DT.0102)  
37 CFR 1.111 Amendment dated 01/09/2006  
Reply to Office Action of 10/13/2005

**AMENDMENTS TO THE DRAWINGS**

The attached replacement sheets of drawings include changes to FIGURES 1-22. These sheets, which include FIGURES 1-22, replace the original sheets including FIGURES 1-22. All of the figures have been prepared by a competent patent draftsman as suggested by the Examiner. In addition, all titles have been removed from the drawings.

Attachment: Replacement Sheets

Application No. 09/849621(Docket: DT.0102)  
37 CFR 1.111 Amendment dated 01/09/2006  
Reply to Office Action of 10/13/2005

### **REMARKS/ARGUMENTS**

In the Office Action, the Examiner noted that claims 1-35 are pending in the application. The Examiner additionally stated that claims 1-35 are rejected. By this amendment, claims 1, 10, 19, 27, 32, and 35 have been amended. Hence, claims 1-35 are pending in the application.

Applicant hereby requests further examination and reconsideration of the application, in view of the foregoing amendments.

#### **Information Disclosure Statements**

In the Office Action, the Examiner stated that the information disclosure statement filed September 2, 2003 fails to comply with the provisions of 37 CFR 1.97, I.9 8 and MPEP § 609 because a document (U.S. Patent 6,025,686 - Fernandez et al- 4/18/2000,) could not be found (although the following U.S. Patent does exist: 6,052,686 - Fernandez et al- 4/18/2000). The Examiner further noted that it (6,025,686) has been placed in the application file, but the information referred to therein has not been considered as to the merits.

Applicant apologizes for the clerical error present in the 09/02/2003 disclosure statement and directs the Examiner's attention to the information disclosure statement filed on 02/16/2004, where Fernandez et al. was correctly cited as U.S. Patent 6,052,686.

#### **In the Drawings**

The Examiner required new corrected drawings (Figures 6-22) in compliance with 37 CFR 1.121(d). In response, Applicant submits herewith replacement drawing sheets for Figures 1-22. In addition, the Examiner pointed out that the title of Figure 4 has the word "Scenario" misspelled, and noted that the full title after the correction should be "Scenario/Results Processor Details." Appropriate correction was required. Applicant notes that in the replacement drawing sheets, all drawing titles have been removed.

Accordingly, it is requested that the objections to the drawings be withdrawn.

Application No. 09/849621(Docket: DT.0102)  
37 CFR 1.111 Amendment dated 01/09/2006  
Reply to Office Action of 10/13/2005

**In the Specification**

The Examiner objected to the abstract because it is greater than 150 words in length. By this communication, the abstract has been amended to comply with the length requirement. It is therefore requested that the objection to the abstract be withdrawn.

The Examiner also objected to the disclosure because of the following informality: the application "Apparatus For Merchandise Promotion Optimization" has serial number 09/849,168 and this serial number is missing in the specification on page 1 (line 17). Also, the application " System For Creating Optimized Promotion Event Calendar" has serial number 09/849,783 and this serial number is missing in the specification on page 22 (line 21), page 23 (line 12), and page 24 (line 17). By this response, paragraphs [0001] and [0052]-[0054] of the specification has been amended to provide the required serial numbers.

The Examiner also noted the use of the trademarks (page 19, lines 12 and 15; page 20, lines 21 and 23; page 26, lines 20 and 23; page 28, line 1 ; page 53, claim 27, line 3; page 56, claim 35, line 2) in this application. The Examiner stated that they should be capitalized wherever they appear and be accompanied by the generic terminology. The Examiner further noted that although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner that might adversely affect their validity as trademarks.

In response, Applicant has searched the application for trademark usage and has amended paragraphs [0047], [0048], [0057], [0059], and [0092] to correct the stated deficiencies.

Applicant has additionally amended the specification to secure a substantial correspondence between the claims amended herein and the remainder of the specification. No new matter is presented.

In view of the above-noted amendments, it is respectfully requested that the objections to the specification be withdrawn.

Application No. 09/849621(Docket: DT.0102)  
37 CFR 1.111 Amendment dated 01/09/2006  
Reply to Office Action of 10/13/2005

### **In the Claims**

#### **Rejections Under 35 U.S.C. §112**

The Examiner rejected claims 10, 27, and 35 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The Examiner noted that claims 10, 27, and 35 contain the trademark/trade name JAVA™. It was asserted that where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph and that the claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. The Examiner further wrote that a trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. The Examiner moreover stated that in the present case, the trademark/trade name is used to identify/describe applets and, accordingly, the identification/description is indefinite. The Examiner suggested that, to overcome these rejections, the claims be amended to remove the trademark (JAVA™) and leave the appropriate generic name (applets).

By this paper, claims 10, 27, and 35 have been amended as suggested above. Accordingly, it is respectfully requested that the rejections be withdrawn.

#### **Double Patenting Rejections**

The Examiner issued rejections of claims 1-35 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-30 of co-pending application 09/849,448 (Docket: DT.0104, filed on 05/04/2001). The Examiner further remarked that the rejections are provisional since the conflicting claims have not been patented.

The Examiner also issued rejections of claims 1-30 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims drawn from U.S. Patent 6,553,352 (Delurgio).

Application No. 09/849621(Docket: DT.0102)  
37 CFR 1.111 Amendment dated 01/09/2006  
Reply to Office Action of 10/13/2005

In response, Applicant provides herewith a terminal disclaimer to obviate a double patenting rejection over a prior patent that disclaims, except as provided therein, the terminal part of the statutory term of any patent granted on the instant application, which would extend beyond the expiration date of the full statutory term defined in 35 U.S.C. 154 to 156 and 173, as presently shortened by any terminal disclaimer, of prior Patent No.6,553,352 (Docket: DT.0103). In addition, the terminal disclaimer disclaims, except as provided therein, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Number 09/849,448 (Docket: DT.0104), filed on 05/04/2001, as such term is defined in 35 U.S.C. 154 and 173, and as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application.

Consequently, Applicant requests that the rejections of claims 1-35 be withdrawn.

**Rejections Under 35 U.S.C. §103(a)**

The Examiner rejected claims 1-13, 16, and 19-28 under 35 U.S.C. 103(a) as being unpatentable over Ouimet, U.S. Patent 6,094,641 (hereinafter, "Ouimet") in view of Morgan, U.S. Patent 5,799,286 (hereinafter, "Morgan"). Applicant respectfully traverses the Examiner's rejections.

With reference to claims 1, 13, 19, and 28, the Examiner noted that Ouimet teaches a computerized merchandizing optimization system (apparatus, device, interface, computer-implemented method, or financial decision tool) to determine the optimum prices/demand/promotion for product(s) for sale, stating that the merchandizing optimization system comprises:

- a program (scenario1 result processor, apparatus, device) to enable the user to prescribe an optimization scenario and be presented with the determined optimum promotion plan (column 3, line 44 through Column 4, line 23).

Application No. 09/849621(Docket: DT.0102)  
37 CFR 1.111 Amendment dated 01/09/2006  
Reply to Office Action of 10/13/2005

- a program (demand engine, controller) configured to model the relationships between prices and market demand/sales (column 4, lines 35-44).
- a program (optimization engine, module, optimization server, controller) to use said demand engine and cost calculations to determine optimal promotion plan (column 3, lines 30-33 and column 4, lines 16-19). The Examiner added that the system calculates the optimum prices/promotions for a standard of merit, in this case profit (column 6, lines 2-5).
- Considers a cost calculation when optimizing promotion and pricing for profit (column 6 lines 2-5).

The Examiner conceded that Ouimet does not teach the method of calculating costs via an activity-based costing methodology, but that Morgan discloses an automated activity-based management system (engine, module, program, controller) designed to:

- Calculate product costs (column 20, lines 24-35)
- Specify (enable, input) product information1 supplier offers (for example, changes/updates in the cost per unit to purchase product from suppliers) via a template (graphical user interface, organized entry fields) (column 3 line 64 through column 4 line 3, and column 6 lines 43-45).

The Examiner opined that Ouimet and Morgan are in the analogous art of providing financial decision tools to businesses to improve their profitability and that it would have been obvious to a person of ordinary skill in the art at the time of invention to combine the teachings of Ouimet and Morgan to determine the optimal promotion plans to achieve profitability using more thorough costing methodology for the advantages of accuracy.

Applicant respectfully disagrees with the Examiner's characterization of the teachings of Ouimet and Morgan as applied to claims 1, 13, 19, and 28, and offers the following arguments in traversal of the rejections.

In combination, claim 1 recites an apparatus that determines an optimum promotion plan for merchandising of products for sale. The apparatus has a scenario/results processor that is configured to enable a user to prescribe an optimization scenario, and that is

Application No. 09/849621(Docket: DT.0102)  
37 CFR 1.111 Amendment dated 01/09/2006  
Reply to Office Action of 10/13/2005

furthermore configured to present the optimum promotion plan to the user. The apparatus also has an activity based cost engine, coupled to the demand engine, and that is configured to estimate demand chain costs for the products based upon the market demand, where *the demand chain costs include fixed and variable costs* for the products for sale. The apparatus also includes a promotion optimization engine that coupled to demand engine and the activity based cost engine. The promotion optimization engine employs the market demand *and the demand chain costs* to determine the optimum promotion plan, where the optimum promotion plan maximizes a merchandising performance figure of merit according to the optimization scenario, and where the optimum promotion plan includes a subset of the promotion events and potential supplier offers.

Applicant has reviewed Ouimet and finds that the teachings therein relate to a method for incorporating psychological effects into a demand model for pricing. Ouimet states that an original demand model is modified to include a mechanism to convert actual prices into perceived prices, thus causing the demand model to predict higher demand for certain prices. A user specifies the function that converts from real prices to perceived prices. This modified demand function is then fitted to a sales history to yield the parameters appropriate to its particular form. In addition, Ouimet states that the demand model can be modified to account for promotional effects where user defines a visibility model, which gives the relative increase in demand for an item caused by a promotion, and the cost of the promotion. Accordingly, the demand model is modified to include the effect of increased demand based on the visibility, and a profit model is modified to account for the added cost due to the added visibility. The profit model is then optimized with respect to both prices and promotions. (Abstract)

Although Ouimet provides a promotion plan is based on product demand and cost calculations(column 4, lines 10-14, 16-19, and 42-44), Applicant notes that the cost calculations refer to the cost of a promotion, not to activity based costs. Ouimet states:

“a visibility cost function having the form  $c_v(V)$ , which gives the cost that a promotion incurs, as a function of the visibility, denoted as  $V$ . This quantity is

Application No. 09/849621(Docket: DT.0102)  
37 CFR 1.111 Amendment dated 01/09/2006  
Reply to Office Action of 10/13/2005

defined as the increase in demand that a promotion incurs, relative to the demand without promotion. (Col. 5, lines 5-9)”

Applicant has searched the teachings of Ouimet and finds that he utterly fails to teach, suggest, or even hint that an optimum promotion plan is determined based upon market demand and demand chain costs, where the demand chain costs include fixed and variable costs for the products for sale. Ouimet further fails to suggest that his model can be combined with other models that do calculate activity based costs.

Applicant is moreover aware that Morgan discloses an automated activity-based management system for employment by a business organization that has costs associated with its employees, facilities, equipment. and overhead to produce products or provide services. Morgan, in describing his invention states that “such a business organization typically generates traditional general ledger accounting information and human resources information. This traditional accounting information is used along with information directed to activities. equipment usage and facilities utilization to generate costs associated with activities performed by the organization. A computer workstation with a graphical user interface is used to accept entries of activity information. The activity information and traditional accounting information are fed to a relational database. The information is processed and costs associated with the employee, facilities. equipment, and overhead components off activities are computed. User-definable ad-hoc reports as well as preformatted reports for trending. forecasting, comparison, benchmarking, and budgeting purposes are generated.” (Abstract)

But Morgan fails to suggest or provide any motivation whatsoever that such activity based costs can be employed along with market demand in a comprehensive optimization scenario to determine an optimum promotion plan. Morgan’s teaching is limited to financial accounting scenarios.

The Examiner’s assertion Ouimet and Morgan are in the analogous art of providing financial decision tools to businesses to improve their profitability does not imply that the combination of the teachings of the two references is obvious absent some suggestion or motivation in either of the references that they indeed could be combined. In fact,



Application No. 09/849621(Docket: DT.0102)  
37 CFR 1.111 Amendment dated 01/09/2006  
Reply to Office Action of 10/13/2005

Applicant asserts in the instant application that “[a]n integrated demand/promotion model typically models demand within a set of promotion event constraints (e.g., temporary price reductions, coupons, advertisements, displays, offers of suppliers during certain promotion events, etc.) provided by the category manager for a product or group of products and establishes an promotion scheme for the product or group of products based partially upon the price elasticity of the product or group of products and the objectives of the model analysis.” Ouimet is an example of such an integrated demand/promotion model.

Yet, Applicant has noted problems associated with such models in that present day demand/promotion models do not take into account the costs associated with providing a product for sale and because demand chain costs are not considered, present day models can only determine prices/promotion schemes as a function of demand to maximize sales, or revenue. By providing the present invention, as recited in claim 1, Applicant has provided a solution that overcomes these problems, and others, via an apparatus that is neither alluded to nor suggested by Ouimet or Morgan.

Accordingly, it is respectfully requested that the rejection of claim 1 be withdrawn.

With respect to claims 2-13 and 16, these claims depend from claim 1 and adds further limitations that are neither anticipated nor made obvious by Ouimet, Morgan, or Ouimet and Morgan in combination. Accordingly, Applicant respectfully requests that the Examiner withdraw his rejections of claims 2-13 and 16.

Claim 19 recites substantially the same limitations as claim 1 with regard to how an optimum promotion plan is generated. In part, “estimating demand chain costs for the products according to the modeled market demand, wherein the demand chain costs include fixed and variable costs for the products.”

As noted above in traversal of the rejection of claim 1, Ouimet does not employ demand chain costs, nor does he suggest that they can be employed. His costs are restricted to the cost of a promotion. Furthermore, Morgan does not provide any motivation for one skilled in the art to employ his activity based costs in any type of promotion plan

Application No. 09/849621(Docket: DT.0102)  
37 CFR 1.111 Amendment dated 01/09/2006  
Reply to Office Action of 10/13/2005

optimization scenario that includes modeled market demand. Accordingly, Applicant requests that the rejection of claim 19 be withdrawn.

With respect to claims 20-28, these claims depend from claim 19 and adds further limitations that are neither anticipated nor made obvious by Ouimet, Morgan, or Ouimet and Morgan in combination. Accordingly, Applicant respectfully requests that the Examiner withdraw his rejections of claims 20-28.

The Examiner rejected claims 14-15, 17-18, and 29-31 under 35 U.S.C. 103(a) as being unpatentable over Ouimet in view of Morgan as applied to claims 1-13, 16, and 19-28, and in further view of Little (1975). Applicant respectfully traverses the rejections.

Applicant has argued above with reference to the rejection of claims 1 and 19 that Ouimet does not teach employing demand chain costs, nor does he provide any suggestion that they can be employed. His costs are restricted to the cost of a promotion alone. In addition, Morgan does not provide any motivation for one skilled in the art to employ his activity based costs in any type of promotion plan optimization scenario that includes modeled market demand. Accordingly, since claims 14-15 and 17-18 depend from claim 1 and add further limitations, and since claims 29-31 depend from claim 19 and add further limitations, Applicant respectfully requests that the rejections of claims 14-15, 17-18, and 29-31 be withdrawn.

The Examiner also rejected claims 32-35 under 35 U.S.C. 103(a) as being unpatentable over Ouimet in view of Morgan as applied to claims 1-13, 16, and 19-28, and in further view of Tellis (1995). Applicant respectfully traverses the rejections.

Regarding claim 32, the Examiner noted that Ouimet and Morgan teach a merchandizing optimization system (apparatus, device, interface, computer-implemented method) to determine the optimal promotional plan for products, promotional events, and supplier offers (see reasons provided for claims 1, 13, 19 and 28). The Examiner further stated that Ouimet does not expressly teach a merchandizing optimization system to:

- Store (archive) product attribute and sales history data for a plurality of stores (retail locations) within a centralized database for relevant products.

Application No. 09/849621(Docket: DT.0102)  
37 CFR 1.111 Amendment dated 01/09/2006  
Reply to Office Action of 10/13/2005

- Employ a web server to allow suppliers to prescribe supplier offers.
- Employ a web server to provide user with a plurality of scenario/result web pages enabling a user to prescribe the promotion events and constraints for generating the optimum promotion plan.
- Access scenario/ result web pages by user computers with a thin web client.

The Examiner pointed out that Tellis teaches a pricing system that includes discussion regarding:

- the ability to set-up (specify using a template) an optimization scenario for specific products that could be in product categories (p. 273, lines 22-24).
- the ability to set-up (specify using a template) an optimization scenario to select the store locations where the sales of the products used in the optimization will be sold (p. 277, lines 34-36).
- the ability to set-up (specify using a template) rules/constraints that govern the determination of the optimum prices (p. 275 lines 28-29).

The Examiner opined that Ouimet teaches a merchandising optimization system that receives instructions via the Internet (column 3, lines 34-41) and that Official Action is taken that it is well known and old that computer programs and associated databases could be stored on a centralized web server and accessed by users operating thin web clients (for example: MICROSOFT® Internet Explorer browsers on personal computers) remotely via an Internet network involving Internet web pages for communication. The Examiner further stated that it is also well known that a database could be created that contains the product attribute and sales history for particular stores and groups of stores.

The Examiner concluded that it would be obvious to one of ordinary skill in the art at the time of invention to collocate the optimization software program and sales history data on a centralized server that is accessible via the Internet to users and suppliers operating thin web clients to communicate to and from a merchandising optimization system and that the said communication could be via web pages (templates, organized data fields) to

Application No. 09/849621(Docket: DT.0102)  
37 CFR 1.111 Amendment dated 01/09/2006  
Reply to Office Action of 10/13/2005

prescribe supplier offers, promotion events, and constraints for generating the optimal promotion plan.

The Examiner added that Oiumet, Morgan, and Tellis are in the analogous art of providing financial planning tools to businesses to improve their profitability and thus it would have been obvious to a person of ordinary skill in the art at the time of invention to combine the teachings of Ouimet, Morgan, and Tellis to determine the optimal price/promotion plan to achieve profitability using more thorough costing methodology for the advantages of accuracy.

Claim 32 recites substantially the same limitations as claims 1 and 19 with regard to how an optimum promotion plan is generated. In part, "determining the optimum promotion plan to maximize either net profit, revenue, or volume, wherein said determining uses both modeled market demand and estimated demand chain costs corresponding to the set of products, and wherein the estimated demand chain costs include fixed and variable costs corresponding to the set of products."

And, as noted above in traversal of the rejections of claims 1 and 19, Ouimet does not employ demand chain costs, nor does he suggest that they can be employed. His costs are restricted to the cost of a promotion. Furthermore, Morgan does not provide any motivation for one skilled in the art to employ his activity based costs in any type of promotion plan optimization scenario that includes modeled market demand. It does not follow then that these teachings can be combined with Tellis to render the obvious the limitations of claim 32. Accordingly, Applicant requests that the rejection of claim 32 be withdrawn.

With respect to claims 33-35, these claims depend from claim 32 and adds further limitations that are neither anticipated nor made obvious by Ouimet, Morgan, or Ouimet and Morgan in combination. Accordingly, Applicant respectfully requests that the Examiner withdraw his rejections of claims 33-35.

Application No. 09/849621(Docket: DT.0102)  
37 CFR 1.111 Amendment dated 01/09/2006  
Reply to Office Action of 10/13/2005

### CONCLUSIONS

In view of the arguments advance above, Applicant respectfully submits that claims 1-35 are in condition for allowance. Reconsideration of the rejections is requested, and allowance of the claims is solicited.

Applicant earnestly requests that the Examiner contact the undersigned practitioner by telephone if the Examiner has any questions or suggestions concerning this amendment, the application, or allowance of any claims thereof.

I hereby certify under 37 CFR 1.8 that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office on the date of signature shown below.

Respectfully submitted,  
**HUFFMAN PATENT GROUP, LLC**

*/ Richard K. Huffman /*

By: \_\_\_\_\_

**RICHARD K. HUFFMAN, P.E.**  
Registration No. 41,082  
Tel: (719) 575-9998

*01/09/2006*

Date: \_\_\_\_\_

Attachments